

Table VI. Oftentimes difficulty is experienced in assembling the bushings on account of not having allowed the proper amount of stock for fitting.

Plate Bushing Holders for Multiple Drilling. When a number of holes are to be drilled and run on a multiple-spindle machine, the most simple method is to place the piece in a suitable jig and use individual slip bushing so that after the holes are drilled the bushings can be replaced with reamer-

Table VI. Allowances for Driving Fit for Drill Bushings

Outside Diameter, Inches	Allowance, Inch	Drive Fit, Inch
3/16	0.001	
7/16	0.001	
1/2	0.001	
9/16	0.0015	
5/8	0.0015	
3/4	0.0015	
13/16	0.0015	

size bushings, the jig moved under the reamers, and the holes machined. The loss of time in handling these slip bushings is so great that the production costs increase very rapidly, especially when the operator has to stop to pry up bushings with a screwdriver or some other tool, as is often the case. This style of bushing will frequently catch the drilling or reaming tool and turn with it, thus wearing the bushing plate. To prevent its turning, the groove-cut bushing is sometimes used. This consists of an ordinary slip bushing in which a slot is cut spirally around one-quarter of the outer periphery. This slot engages a pin in the bushing plate so that, when the bushing starts to slip, the pin prevents its making a full turn. A modification of this method was described in connection with Fig. 12. One source of trouble from individual slip bushings is the accumulation of chips, which must be carefully removed before the bushings are changed; another is the possibility of inter-